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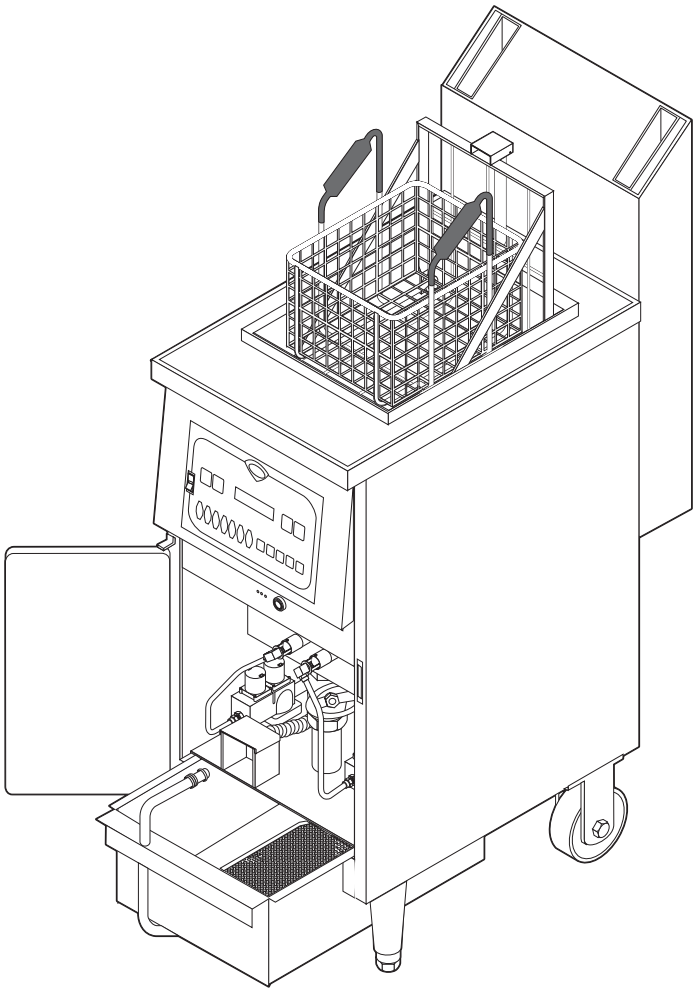

SUPPLEMENTAL SERVICE INSTRUCTIONS for

GAS FRYER WFGA-60FS

IMPORTANT: WELLS MANUFACTURING PROPRIETARY INFORMATION. DISSEMINATION OF THIS INFORMATION TO ANYONE OTHER THAN WELLS AUTHORIZED SERVICE AGENTS IS STRICTLY PROHIBITED. TECHNICAL CONTENT OF THIS MANUAL IS DESIGNED FOR USE BY QUALIFIED PROFESSIONAL TECHNICIANS ONLY.

PRINTED IN UNITED STATES OF AMERICA

*p/n **503089** Rev. C ECN-13391 S371 **07**1128 cps*

DANGER:
BURN HAZARD

Cooking oil in this appliance operates at very high temperatures. Contact with hot oil can cause severe injury or death. Wear appropriate heat-protective clothing when operating or servicing this appliance. Never attempt to open the frypot if the pressure gauge reads anything other than "zero" (0) psi.

WARNING:
SLIP AND FALL HAZARD

Spilled cooking oil is very slippery and can cause falls. Clean up oil spills promptly.

CAUTION:
BURN HAZARD

Exposed surfaces can be hot to the touch and may cause burns.

CAUTION:
HEALTH HAZARD

Old cooking oil can be a breeding ground for bacteria. Clean and sanitize exterior surfaces of fryer regularly.

This appliance is intended for use in commercial establishments only.

This appliance is intended to prepare food for human consumption. No other use is recommended or authorized by the manufacturer or its agents.

DO NOT open any panel that requires the use of tools for access. Live electric circuits may be exposed by opening such panels. Opening access panels must be performed by an Authorized Service Agent only.

This appliance is equipped with an oil filtration system designed to filter hot liquid shortening only. Water, cleaning agents and/or other liquids will contaminate the oil and may damage the filter pump.

Operators of this appliance must be familiar with the appliance use, limitations and associated restrictions. Operating instructions must be read and understood by all persons using or installing this appliance.

Cleanliness of this appliance is essential to good sanitation. Read and follow all included cleaning instructions and schedules to ensure the safety of the food product.

DO NOT submerge any part of this appliance in water unless specifically instructed to do so. This appliance is not jet stream approved. DO NOT direct water jet or steam jet at this appliance, nor at any control. DO NOT splash or pour water on, in or over any controls. DO NOT wash area around this appliance with water jet. Any part which has become wet must be thoroughly dried before use.

Cooking oil will be very hot when in use. Contact will cause severe injury, and can cause blindness or death. Wear appropriate heat-protective clothing when operating or servicing this appliance.

This appliance must be operated with the supplied legs and casters properly installed.

The technical content of this manual, including any parts breakdown illustrations and/or adjustment procedures, is intended for use by qualified technical personnel only.

Any procedure which requires the use of tools must be performed by a qualified technician.

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INTRODUCTION

This manual contains information needed to properly service and repair WFPE-30FS Pressure Fryer. For installation, operation and maintenance instructions, refer to the Operation Manual p/n 300007.

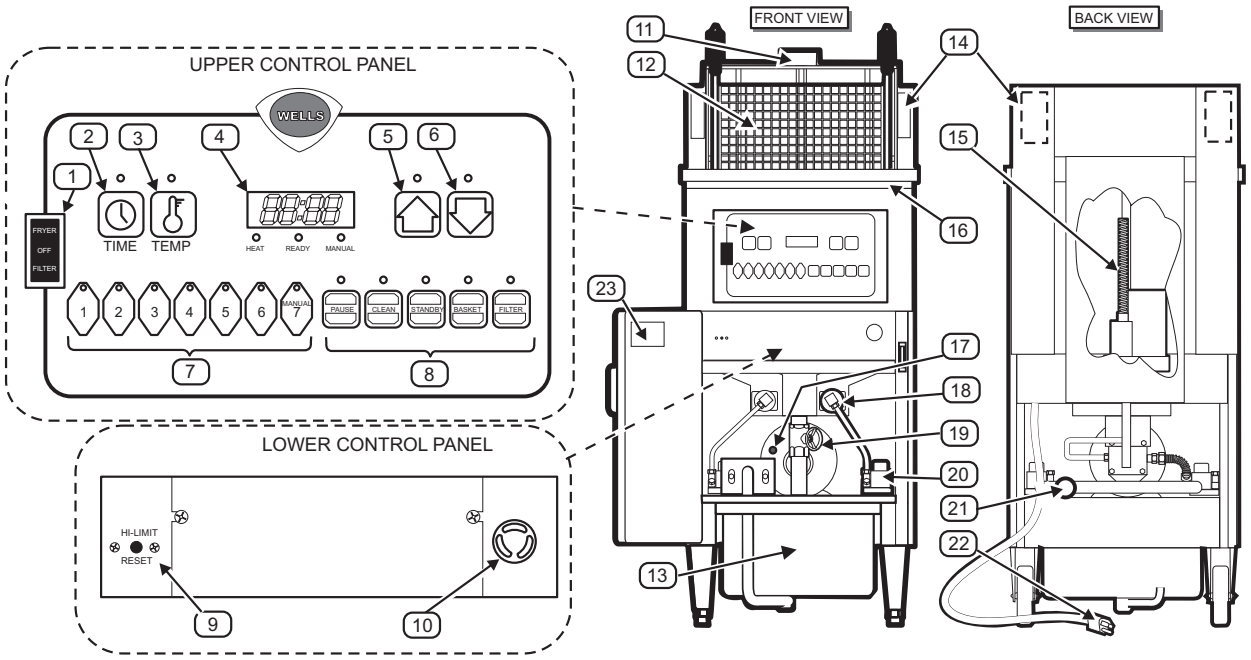
SPECIFICATIONS

DIMENSIONS	**Wide**	**Deep**	**High**
	18.19”	38.25”	47.44”

CAPACITIES		**Lbs.**	**Kg.**
	Cooking Oil (Liquid Shortening Only)	60	27
	Chicken (Fresh)	30	13
	Chicken (Frozen)	25	11

POWER REQUIREMENTS		
VOLTAGE	120VAC Single Phase Only	5 amps
FUEL	Natural Gas (3.5” W.C.) field convertible to LP/Propane (10” W.C.) to be performed by a qualified technician only.	

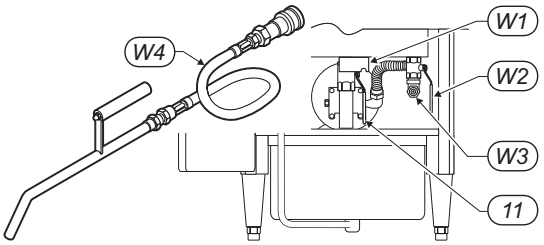
COMPONENTS & CONTROLS



WFGA-60FS Features & Operating Controls

1	**POWER SWITCH** *(FRYER-OFF-FILTER)*	***FRYER*** position energizes the FRYER and POWER LIGHT; de-energizes FILTER PUMP. HEATING ELEMENTS energized and regulate to setting on CONTROL THERMOSTAT (8).
		OFF position de-energized FRYER and FILTER PUMP.
		FILTER position de-energizes FRYER; energizes FILTER PUMP SWITCH (6).
2	**TIME KEY**	Used to check and set menu times
3	**TEMP KEY**	Used to check and set cooking temperature
4	**DIGITAL READOUT**	LED display of various data and functions
5	**UP ARROW KEY**	Used to raise FRY BASKET and to increase program settings
6	**DOWN ARROW KEY**	Used to lower FRY BASKET and to decrease program settings
7	**MENU KEYS**	Used to start a menu time/temp cook cycle Keys 1 thru 6 are programmable for time and temperature Key 7 is available for individually set time/temp cook cycles
8	**FUNCTION KEYS**	Used to perform the functions of: PAUSE CLEAN STANDBY BASKET (raise/lower when used with up arrow & down arrow) FILTER (acknowledgement warning signal)

9	**HI-LIMIT THERMOSTAT**	Provides over-temperature protection by de-energizing HEATING ELEMENTS should oil temperature exceed factory pre-set limits.
10	**SONALERT**	Audible alarm to signal end of cook cycle and other programmed functions
11	**LIFT CRADLE**	Raises and lowers FRY BASKET.
12	**FRY BASKET**	Sits on the LIFT CRADLE and holds product to be cooked. Raised and lowered by the LIFT CRADLE.
13	**OIL FILTER RESERVOIR**	Holds the filter element. Holds oil during filtering cycle.
14	**EXHAUST FLUE**	Twin flues. Hot flue gases exit here.
15	**LIFT MOTOR**	Raises / lowers LIFT CRADLE. Accessible for lubrication through the access plate in back panel.
16	**VENTILATION SLOT**	Provides air inlet for COOLING FAN inside CONTROL PANEL.***NEVER ALLOW WATER TO GET INTO THIS SLOT.***
17	**FILTER PUMP MOTOR RESET BUTTON**	The FILTER PUMP MOTOR is equipped with an over-heating protection device. RESET must be performed manually. Allow the motor to cool for approx. 15 min., then firmly press the red button on the back of the motor until it "clicks".
18	**BURNER ASSEMBLY**	Two assemblies; comprised of orifice, shutter, burner and ignitor.
19	**DRAIN VALVE OVALHANDLE**	Opens and closes the DRAIN VALVE. To OPEN, turn the handle counterclockwise (to vertical). To CLOSE, turn the handle clockwise (to horizontal).
20	**GAS SHUT-OFF VALVES**	Two valves, one located behind each gas control valve. Allow isolation of either burner circuit.
21	**GAS CONNECTION**	Gas supply connects here.
22	**POWER CORD**	115V 15Amp, NEMA 5-15P
23	**DATA PLATE**	Identifies the appliance manufacturer, model and serial number; also gives electrical ratings, gas ratings.



Optional Wand

For units equipped with OPTIONAL FILTER WAND		
W1	**BURNER INTERLOCK SWITCH**	Disables burners any time drain valve is not closed.
W2	**3-WAY VALVE HANDLE**	***HORIZONTAL*** directs output of filter pump to filter wand. ***VERTICAL*** directs output of fliter pump to frypot.
W3	**QUICK DISCONNECT MALE FITTING**	Filter wand connects to this fitting.
W4	**FILTER WAND**	Used to wash down sides of frypot, or to direct oil to disposal container.

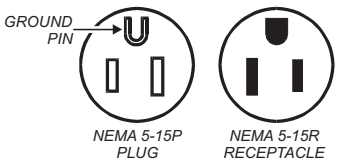
INITIAL SET-UP AND ADJUSTMENTS

IMPORTANT:
Setup the FRYER only on a firm, level surface. Clearances from all combustible and non-combustible construction is 1" minimum. The area around the fryer must be kept clear of flammable and combustible materials.

IMPORTANT:
This fryer must be installed and operated under a ventilation hood conforming to all applicable local odes. Combustion fumes must be vented in accordance with local codes.

CAUTION
ELECTRICAL SHOCK HAZARD

DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THE PLUG. Ungrounded electrical equipment cause personal injury and property damage.



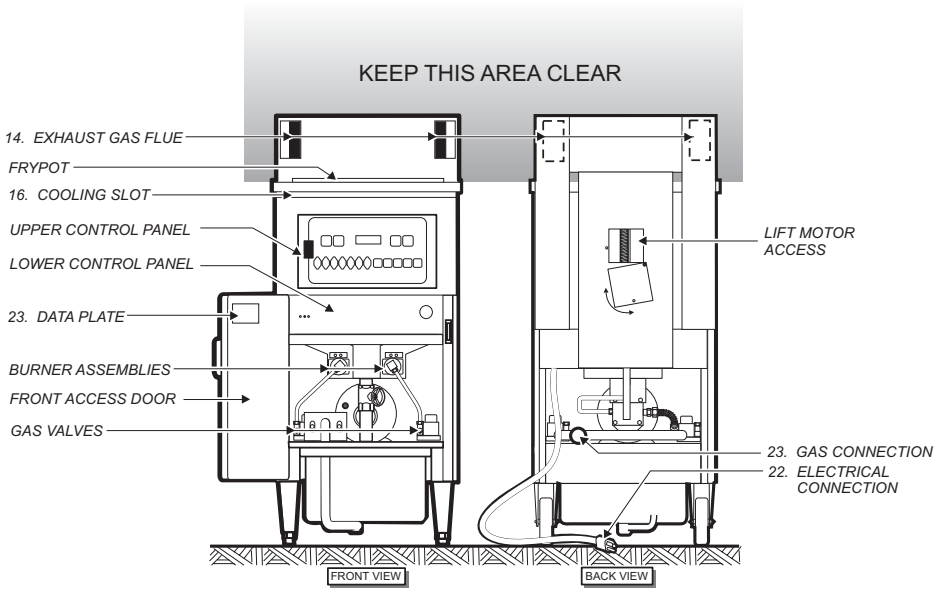
NEMA 5-15 Plug and Receptacle

INITIAL INSTALLATION

A single WFGA-60FS gas-fired fryer requires a minimum of 500 cubic feet per hour (12 CFM) exhaust air, measured at the exhaust hood ventilator fan. Supply ventilation for the kitchen must have sufficient capacity to prevent a negative-pressure condition.
DO NOT obstruct or restrict ventilation and make-up air required to support combustion.

LEVELING: Verify that the fryer sits firmly ON BOTH CASTERS AND ON BOTH LEGS. With a spirit level, check that the fryer is level front-to-back and side-to-side. With the adjustable legs, adjust as required to level the fryer.

DO NOT obstruct the flow of the two exhaust flues (item 14) at the top rear of the fryer. It is especially critical that gas supply piping and electrical supply cord and/or receptacle be routed away from the path of the hot combustion fumes.



Cooking and cleaning functions require unobstructed access. The frypot, control panels,cooling slot (item 16) and front access door must be maintained free from obstructions. The rear access panel must be accessible for maintenance.

ELECTRICAL INSTALLATION

The fryer is equipped with a three-prong grounding plug (NEMA 15-5P) for your protection against shock hazard. The fryer must be plugged directly into a properly grounded three-prong receptacle (NEMA 15-5R).

The installation of this fryer must conform to local codes. In the absence of local codes, the installation of this fryer must conform with the National Electrical Code (ANSI Z223.1). In Canada, CSA C22.2 is applicable.

DO NOT obstruct the flow of the two exhaust flues (item 14) at the top rear of the fryer. It is especially critical that gas supply piping and electrical supply cord and/or receptacle be routed away from the path of the hot combustion fumes.

Because the fryer draws less than 8 amps, two fryers may be plugged into the same 15 amp circuit if required.

GAS PLUMBING INSTALLATION AND SET-UP

DANGER

FIRE AND EXPLOSION HAZARD

GAS CONNECTIONS AND GAS ADJUSTMENTS MUST BE MADE BY A LICENSED PLUMBER, CERTIFIED IN GAS INSTALLATION.

A gas explosion will cause death or serious injury

The installation of this fryer must conform to local codes. In the absence of local codes, the installation of this fryer must conform with the National Fuel Gas Code (ANSI Z223.1). In Canada, the National Gas Installation Code (CAN/CGAB149.2) is applicable.

The fryer must be isolated from municipal gas pressure or LP/propane tank pressure by a gas pressure regulator. In any instance where gas line pressure is in excess of 15" of water column (1/2 psi or 3.45kP), as during gas line testing or regulator maintenance, the fryer must be isolated from the supply piping by *closing* its ***two*** individual manual shut-off valves (item 20).

This fryer requires specific gas pressure (at the burner orifice) for proper operation:

Natural gas @ 3.5" of water column; or,
LP/propane @ 10" of water column.

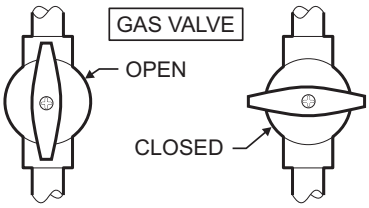
The gas valve is rated for a maximum of 15" of water column incoming line pressure.

Gas pressure must be checked for ***BOTH*** burner systems, while the fryer is in operation. This pressure is measuredby connecting a manometer to the pressure tap on the gas control valve (pressure tap is threaded 1/8" NPT) :

a. Press the power switch to *OFF*. Turn the gas shut-off valve for that side *OFF*.
b. Remove the pressure tap plug and insert an appropriate manometer.
c. Turn the gas shut-off valve *ON*, and press the power switch to *FRYER.*
d. Read the manometer while the gas control valve is energized.

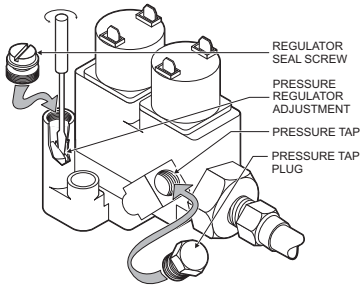
If adjustment is necessary, remove the regulator seal screw and, using a small, flat-blade screw driver, turn the adjusting screw (inside).

Be sure to turn the gas shut-off valve *OFF* prior to removing the manometer. Replace the regulator seal screws and pressure tap plugs for **BOTH** gas valves before turning the gas shut-off valves *ON*.



Gas Shut-Off Valves

IMPORTANT: Failure to isolate the fryer from excessive pressure will damage the gas valves and allow raw gas to leak into the room.



Valve Initial Adjustment

NATURAL GAS
3.5 INCHES (89MM) WATER PRESSURE

ORIFICE KIT#	MTD STAMP	ELEVATION - FEET ELEVATION - METERS
502140	36	BELOW 3000 FEET BELOW 914 METERS
502141	38	3000 - 5999 FEET 914 - 1828 METERS
502142	40	6000 - 8999 FEET 1829 - 2743 METERS
502143	42	ABOVE 9000 FEET ABOVE 2743 METERS

PROPANE (LP) GAS
10 INCHES (254MM) WATER PRESSURE

ORIFICE KIT#	MTD STAMP	ELEVATION - FEET ELEVATION - METERS
502144	51	0 - 1999 FEET BELOW 609 METERS
502145	52	2000 - 6999 FEET 601 - 2133 METERS
502146	53	ABOVE 7000 FEET ABOVE 2134 METERS

ALWAYS USE NEW ORIFICE. DO NOT REDRILL ORIFICES!

Fuel and Altitude Conversion

IMPORTANT:
Conversion for fuel and/or altitude must be performed by a licensed plumber certified in gas installation only.

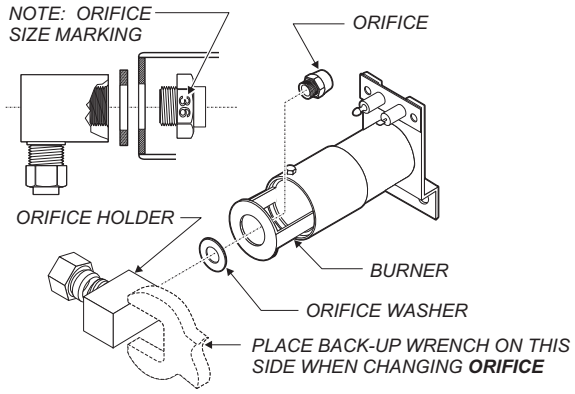
NOTE: Failure to install proper orifices can potentially cause burner and flue system failure. Damaged caused by improper orifice installation is NOT covered by warranty

NATURAL GAS / LP GAS (PROPANE) CONVERSION

This fryer is orificed at the factory for natural gas at a pressure of 3.5" of water column. The installed orifice is suitable for use at -280 to 2999 feet (-85 to 914 meters) elevation. It is the responsibility of the installer to install the factory recommended orifice and pressure regulator kit suitable for the fuel type and elevation at the final installation site.

The red tag (p/n 301217) attached to the gas connection provides pressure settings and part numbers for conversion kits applicable to various fuels and altitudes.

The natural gas altitude conversion kit contains two orifices.

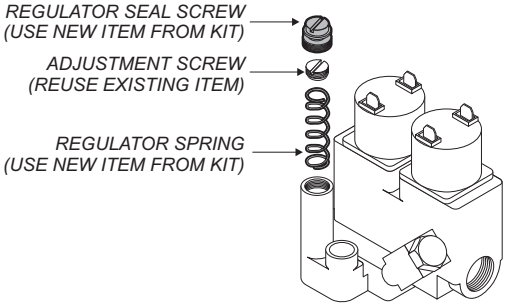


Both orifices must be changed.

Be sure to use a back-up wrench when changing orifices to avoid bending the orifice bracket on the burner tube.

Be sure to check operating pressures on both burner systems after the orifices have been changed.

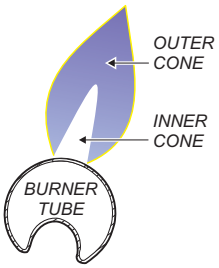
The LP gas (propane) conversion set contains two orifices and two gas valve regulator kits.



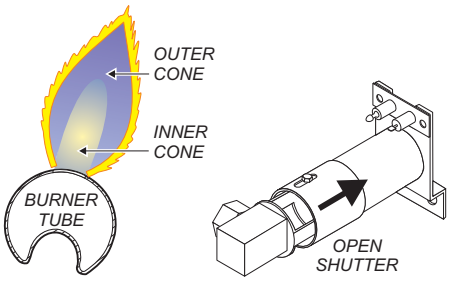
Both orifices must be changed, and both gas valve regulators must be converted.

Complete instructions are included in the regulator conversion kits. Be sure to check and adjust operating pressures on both burner systems after the orifices have been changed and the regulators have been converted.

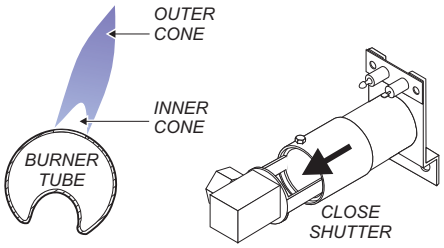
FLAME ADJUSTMENT



A proper flame will have a bright blue, well defined inner cone, and a strong, light blue outer cone with only a very little yellow along the outermost edges.



Too much yellow indicated a rich flame. Adjust by opening the shutter or decreasing the orifice size



No yellow and a very small inner cone indicates a lean flame. Adjust by closing the shutter or increasing the orifice size.

IMPORTANT:
See tag p/n 301217 for proper orifice size for the installation altitude.

NOTE:
For most efficient operation, adjust for a neutral flame:
A rich flame wastes fuel and produces excessive soot.
A lean flame promotes rust and may shorten the life of exhaust system components.

OPERATION - SOLID STATE CONTROLS

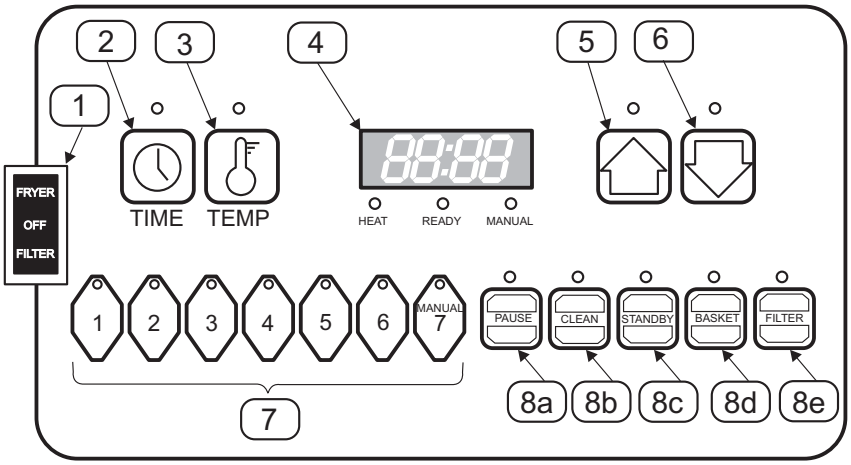
CAUTION:

BURN HAZARD

Hot oil can cause serious burns on contact. Wear appropriate protective clothing when using this fryer.

IMPORTANT:
Never press the POWER SWITCH to FRYER unless the frypot is properly filled with shortening. Check shortening level marker inside frypot.

PROGRAMMING KEY FUNCTIONS

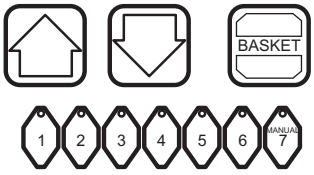


As each control panel key is pressed, a "beep" will sound. Illuminated indicator light for each key will light whenever that key is pressed, and any time the function associated with that key is active.

FRYER - OFF - FILTER switch (item 1) allows the fryer to be placed in a normal cook mode (*FRYER*), an oil-filtering mode (*FILTER*) or turned *OFF*.

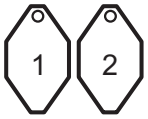
TIME key (item 2) controls time functions.
TEMP key (item 3) controls temperature functions. Data can be read on the solid state READOUT (item 4).

HEAT indicator is lit whenever the burners are energized; READY indicator is lit when cooking oil is at programmed temperature. MANUAL indicator is lit whenever MENU key 7 is selected.



Arrow keys (item 5 & 6) control the basket lift (after pressing BASKET key), and are used to scroll through program settings.

MENU keys (item 7) allow a choice of six (or seven) pre-programmed time / temp settings.



Suggestion: MENU keys 1 and 2 incorporate a feature that will inform the operator when to "drop" wings and drumsticks during cook cycle. "Drop" feature will allow you to cook breasts and thighs longer than wings and drumsticks by sounding a beep, and displaying "***DrOP***" on readout (item 4). **Your fryer installer can program this feature into your controller upon request.**

Any selected MENU key can be cancelled by pressing and holding for 3 seconds.

MENU key 7 is unprogrammed so that special or one-of-a-kind product may be programmed any time:

With fryer is *ON*, press and hold TIME key and MENU 7 key at the same time.

Press the UP or DOWN arrow key until the desired time is displayed.

If this MANUAL feature is not desired, MENU key 7 may be programmed in the identical fashion to MENU keys 1 thru 6.

NOTE:
Solid state controller is shipped from the factory with all seven MENU keys programmed for ZERO time and 325ºF (165ºC on units shipped to Europe).

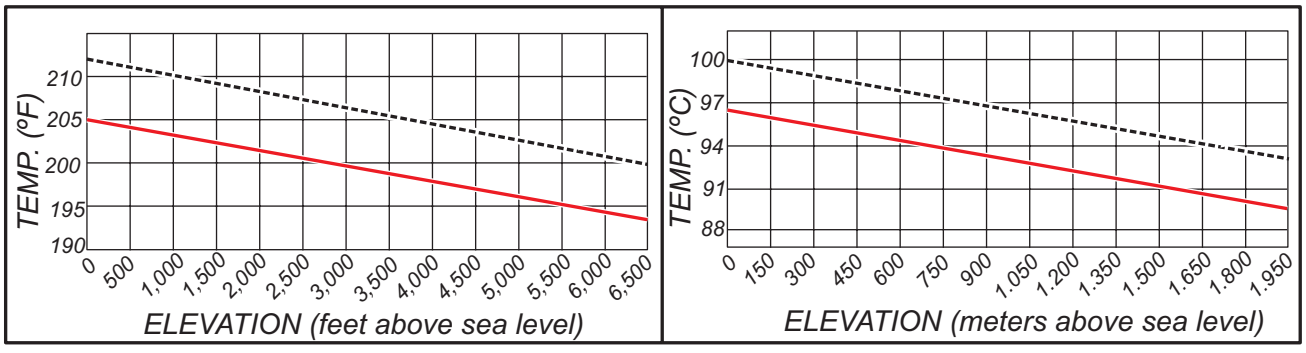
SERVICE MODE PROGRAMMING

CUSTOMIZING PROGRAMMING FOR END USER SPECIAL NEEDS

PRESS	DISPLAY	DESCRIPTION and DEFAULT	RANGE
POWER SWITCH *ON*	**00:00**	Energize fryer	none
	Aut alternates with **0**	Enter Service Mode Programming AUTO-TUNE	0 DO NOT CHANGE
	Pb 1 alternates with **0**	PROPORTIONAL BAND Factory set at *0*	0 DO NOT CHANGE
	StP alternates with **1** or **2** or **3**	COOKING PROGRAM STEPS Factory set at *1*	1, 2 or 3
	Loop alternates with **OFF**	SHORTED SENSOR PROTECTION Factory set at *OFF*	ON or OFF Leave *OFF*
	nnS alternates with **OFF**	SOLID SHORTENING MELT CYCLE Factory set at *OFF* for units without melt option Factory set at *ON* for units with melt option	ON or OFF Leave *OFF* for all units not equipped with melt option
	CLE alternates with **275º**(F) or **CLE** alternates with **135º**(C)	COOL DOWN TEMPERATURE Factory set to 275ºF or 135ºC	195ºF to 350ºF 93ºC to 191ºC
	bStP alternates with **CleanTemp**	CLEANING SET POINT TEMPERATURE Factory set to 200ºF or 93ºC Set on installation for site altitude	185ºF to 208ºF 85ºC to 99ºC see BOIL CHART below
	Oil alternates with **5**	OIL FILTER MENU CYCLES COUNTER Factory set to 5	0 = *OFF* 1 to 20 = # of loads for alert
	Per alternates with **19**	DROP CYCLE ALARM Factory set 19 % of elapsed time (menu 1, 2)	0 = *OFF* 1 (%) to 90 (%)
	AUdF alternates with **–2**	FILTER CYCLE ALARM Configuration Factory set to 2 sec. *ON* / 2 sec. *OFF*	-10 to -1 = seconds *ON*/*OFF* 1 to 59 = seconds on 0 = *OFF*, 60 = continuous
	AUdd alternates with **–1**	DROP ALARM Configuration Factory set to 1 sec. *ON* / 1 sec. *OFF*	-10 to -1 = seconds *ON*/*OFF* 1 to 59 = seconds on 0 = *OFF*, 60 = continuous
	AUdn alternates with **10**	END OF MENU Configuration Factory set to 1 tone, 10 sec. long	-10 to -1 = seconds *ON*/*OFF* 1 to 59 = seconds on 0 = *OFF*, 60 = continuous
	00:00	Return to operating mode	none

NOTE: If no key is pressed within 30 seconds, controller will revert to operating mode.
Once in the Service Mode (Aut displayed), TIME key must be pressed 12 times to complete programming cycle and save changes.
Alternately, wait 30 seconds for controller to revert to operating mode without saving changes.

BOILING POINT OF WATER and CLEANING TEMPERATURE SETTING - - - BASED ON ALTITUDE



OPERATIONS TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
READOUT not lit (Fryer not operating)	POWER SWITCH not in *FRYER* position	Press POWER SWITCH to *FRYER* position
	Circuit breaker *OFF* or tripped	Reset circuit breaker
	Service wiring problem	Correct service wiring
	Controller connection faulty	Check/replace connector
(Fryer operating norm.)	CONTROLLER damaged	Replace CONTROLLER
BURNERS DO NOT LIGHT (READOUT lit /cooking oil cold)	Programmed temperature too low	Raise programmed temperature select another MENU KEY
	HI-LIMIT THERMOSTAT tripped	Allow oil to cool, reset HI-LIMIT
	CONTROLLER damaged	Replace CONTROLLER
	TEMP PROBE damaged	Replace PROBE
	Wiring problem / loose connection	Correct wiring problem
ONE BURNER DOES NOT LIGHT	GAS SUPPLY VALVE closed	Open gas supply valve
	GAS CONTROL/REGULATOR damaged	Replace GAS CONTROL/REGULATOR
	IGNITER SYSTEM damaged	Replace IGNITER MODULE, BURNER ASSENBLY and/or IGNITER WIRES
CRADLE LIFT won't lower	Improper key strokes	Press "BASKET" then "DOWN ARROW"
	LIFT MOTOR damaged	Replace LIFT MOTOR
	DOWN RELAY damaged	Replace RELAY
	Wiring problem / loose connection	Correct wiring problem
	CONTROLLER damaged	Replace CONTROLLER
CRADLE LIFT won'traise	READOUT not "00:00" or "PAUSE"	Press "PAUSE" + "UP ARROW"
	LIFT MOTOR damaged	Replace LIFT MOTOR
	UP RELAY damaged	Replace RELAY
	Wiring problem / loose connection	Correct wiring problem
	CONTROLLER damaged	Replace CONTROLLER
BUZZER does not sound, or is not loud enough	Buzzer programmed *OFF*	See page 9
	BUZZER SHUTTER closed	Open SHUTTER
	BUZZER damaged	Replace BUZZER
	Wiring problem / loose connection	Correct wiring problem
	CONTROLLER damaged	Replace CONTROLLER
MENU KEY does not operate	MENU KEY not programmed	Program MENU KEY. See pg. 8
	CONTROLLER damaged	Replace CONTROLLER
FUNCTION KEY does not operate	Improper KEY entry	See pg. 8 for proper usage
	CONTROLLER damaged	Replace CONTROLLER

ERROR CODE / PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Er01 Read Only Memory checksum error	Internal ROM corrupted	Press power switch to *OFF*, then *ON*
Er02 Random Access Memory checksum error	Internal RAM corrupted	Press power switch to *OFF*, then *ON*
Er03 Ambient temperature sensor error	Ambient temperature is below 32ºF/0ºC	Verify ambient temperature agrees with temp readout
	Factory calibration parameters altered	Restore factory calibration (call factory for calibration instructions)
Er04 Configuration error	Microprocessor functions halted	Press power switch to *OFF*, then *ON* Replace controller
Er05 EEprom error	Stored data corrupted or incomplete	Press power switch to *OFF*, then *ON* Reprogram controller
Er06* Zone 1 Analog/Digital underflow error	Sensor leads reversed	Verify sensor connection polarity
	Incorrect sensor type	Contact factory for instructions for verifying *InP1* parameter. Verify InP1 matches sensor
	Measured temp outside sensor range	Verify temp within sensor range
Er07* Zone 1 Analog/Digital overflow error	Open sensor	Verify sensor connections Replace sensor
Er08* Zone 2 Analog/Digital underflow error	Sensor leads reversed	Verify sensor connection polarity
	Incorrect sensor type	Contact factory for instructions for verifying *InP1* parameter. Verify InP1 matches sensor
	Measured temp outside sensor range	Verify temp within sensor range
Er09* Zone 2 Analog/Digital overflow error	Open sensor	Verify sensor connections Replace sensor
Er10 Stack overflow error	Microprocessor error	Press power switch to *OFF*, then *ON*
Er11* Zone 1 open sensor error	Open sensor	Verify sensor connections Replace sensor
Er12* Zone 1 shorted sensor	Incorrect sensor type Measurement outside of sensor range	Verify correct sensor Verify sensor connections Replace sensor
Er13* Zone 2 open sensor error	Open sensor	Verify sensor connections Replace sensor
Er14* Zone 2 shorted sensor	Incorrect sensor type Measurement outside of sensor range	Verify correct sensor Verify sensor connections Replace sensor
Er15* Zone 1 loop error **Er16*** Zone 2 loop error	Shorted sensor	Check connections / replace sensor
	Incorrect Pb1/Pb2 value	See programming instructions, page 9
	Damaged heating element / wiring	Replace element / repair wiring
	Damaged heating relay / wiring	Replace relay / repair wiring

* These errors will automatically clear when the condition causing the alarm has been resolved.

In all instances of error message, check connections of probes to controller for tightness and polarity.

MAINTENANCE INSTRUCTIONS - FILTER OPERATION

FILTER LEAF ASSEMBLY

WARNING: BURN HAZARD

HOT OIL SPILL OR SPLATTER

DO NOT REMOVE FILTER RESERVOIR WHEN IT CONTAINS HOT OIL

HOT OIL WILL CAUSE SEVERE BURNS ON CONTACT

PROTECTIVE CLOTHING AND GLOVES MUST BE WORN DURING THE FILTERING PROCESS

Death or serious injury may result from contact with, or slipping and falling in, spilled oil.

WARNING: BURN HAZARD

DO NOT REMOVE FILTER RESERVOIR IF IT IS HOT. WEAR INSULATED GLOVES OR ALLOW IT TO COOL.

Hot oil quickly heats reservoir. Touching hot reservoir with bare hands can causing serious injury

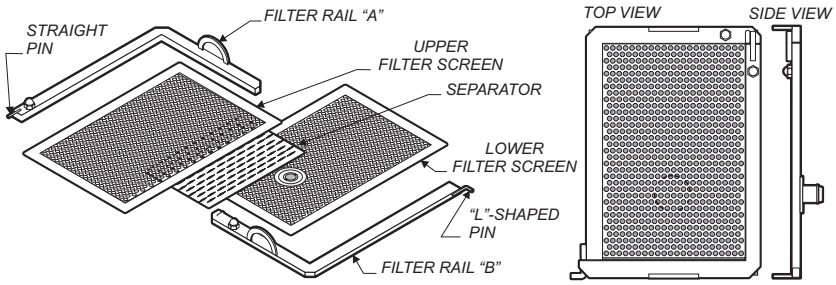
Clean FILTER LEAF after each day's filtration, or as needed to return oil promptly to the kettle.

Open FRYER DOOR and slide the FILTER RESERVOIR forward to remove it. Remove FILTER LEAF from reservoir.

Disassemble FILTER LEAF by separating the two side rails at the joint with the straight pin. Clean all components in a sink with warm water and mild detergent, or in a dishwasher.

Assemble SCREEN with the SEPARATOR installed between the two screens. Verify that O-RING is in place on the suction tube on BOTTOM SCREEN.

Slide screens into SIDE RAIL "B" (L-shaped pin). Hook SIDE RAIL "A" over the pin on SIDERAIL "B" and work the screens into SIDE RAIL "A" until straight pin on "A" is held by the "bump" on "B".



Install FILTER LEAF in RESERVOIR with suction tube firmly into filter drain hole.

Install filter reservoir into the fryer. Make sure the "O" ring closest to end of SUCTION TUBE is firmly seated in SUCTION LINE RECEPTACLE.

IMPORTANT: Make sure all oil is pumped into FRYPOT before removing reservoir.

NOTE:
When properly assembled, handle will point away from suction tube on BOTTOM SCREEN.

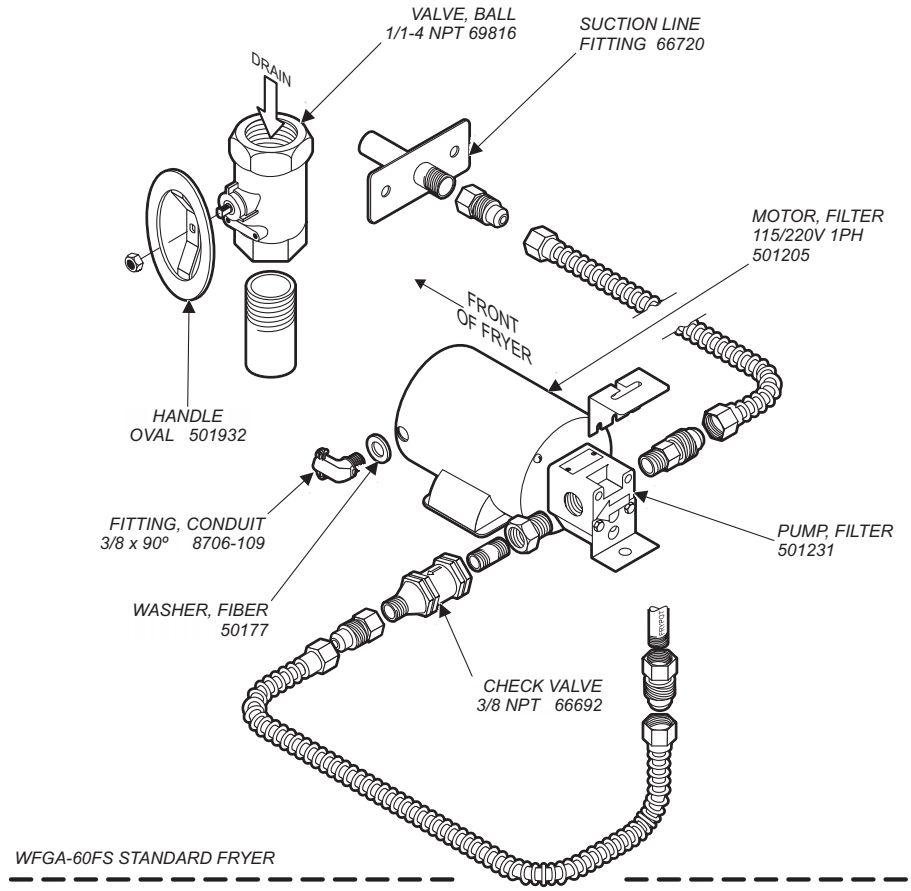
NOTE:
Inspect the "O" RING on FILTER SUCTION TUBE for damage. Replace "O" ring if it is cut, cracked or scuffed using one of the spare o- rings in the suction tube groove.

IMPORTANT:
Avoid contaminating the oil or food product by verifying that all components of filter reservoir assembly are completely dry before reassembling.

FILTER SYSTEM

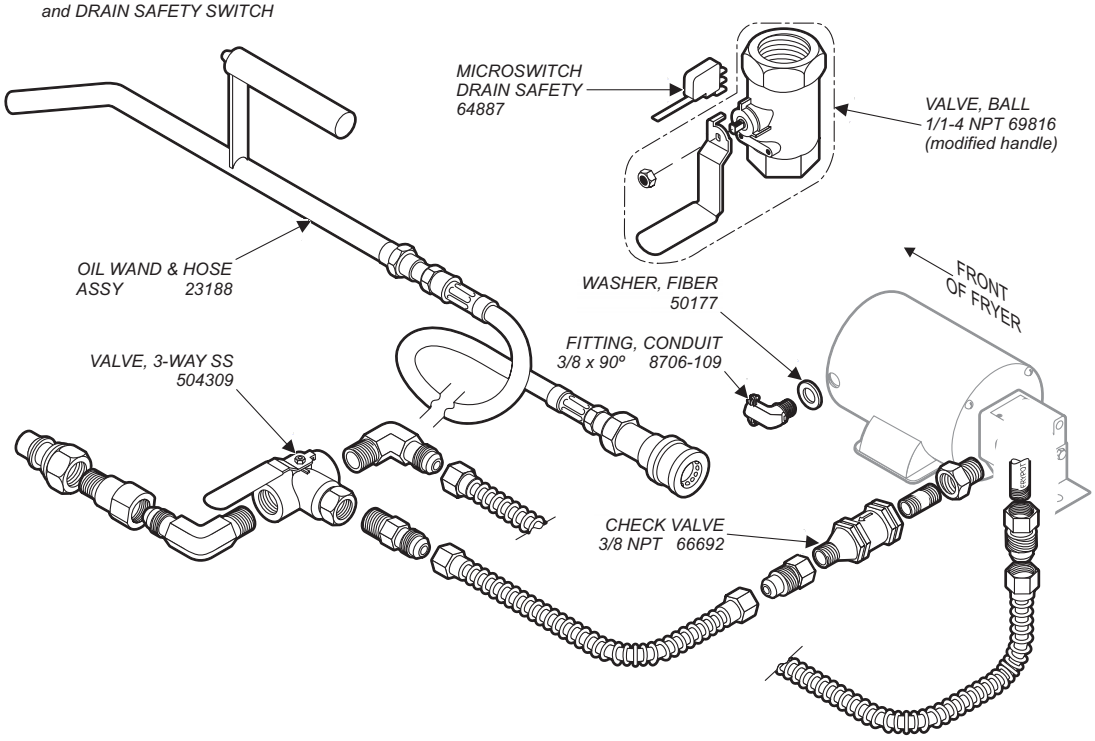
SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
FILTER PUMP does not run	POWER SWITCH not in FILTER	Press power switch to filter
	FILTER PUMP MOTOR OVERLOAD tripped	Allow motor to cool. Press red button on back of pump motor
	FILTER SWITCH damaged	Replace filter switch
	POWER SWITCH damaged	Replace power switch
FILTER PUMP runs but will not pump cooking oil	SUCTION TUBE not seated in suction receptacle	Properly install filter reservoir
	SUCTION TUBE O-RING missing or damaged	Replace suction tube o-ring
	Damaged SUCTION TUBE	Replace filter reservoir assembly
	Damaged SUCTION RECEPTACLE	Replace suction receptacle
	Pump CHECK VALVE plugged	Clean check valve
	Pump CHECK VALVE reversed (improperly installed during repair)	Note TOP marked on valve Install check valve correctly
	FILTER LEAF clogged	Clear face of filter leaf or replace filter leaf IMPORTANT: Allow oil to cool before moving reservoir
	Solid shortening melt option - Oil solidified in reservoir, filter or tubing	Be sure reservoir pan is pushed fully to the rear so that heater contacts are engaged Repair / replace heat tape, contact assembly or transformer as required
Bubbles in circulating oil at all times during filtration cycle	SUCTION TUBE not seated in suction re-ceptacle	Properly install filter reservoir
	SUCTION TUBE O-RING missing or damaged	Replace suction tube o-ring
	Insufficient oil entering FILTER RESERVOIR	Incrementally open DRAIN VALVE Clear crumbs/debris from DRAIN VALVE
PUMP MOTOR tripped Will not reset	Pump jammed with debris	Clear debris from pump
	PUMP HEAD damaged	Replace pump head
	PUMP MOTOR damaged	Replace pump motor
	Solid shortening melt option - Oil solidified in reservoir, filter or tubing	Be sure reservoir pan is pushed fully to the rear so that heater contacts are engaged Repair / replace heat tape, contact assembly or transformer as required
Oil not being filtered	FILTER leaf missing, damaged or not properly installed	Properly install filter leaf. Be sure filter leaf o-ring is properly installed

FILTER SYSTEM - PUMP EXPLODED VIEW & PARTS LIST

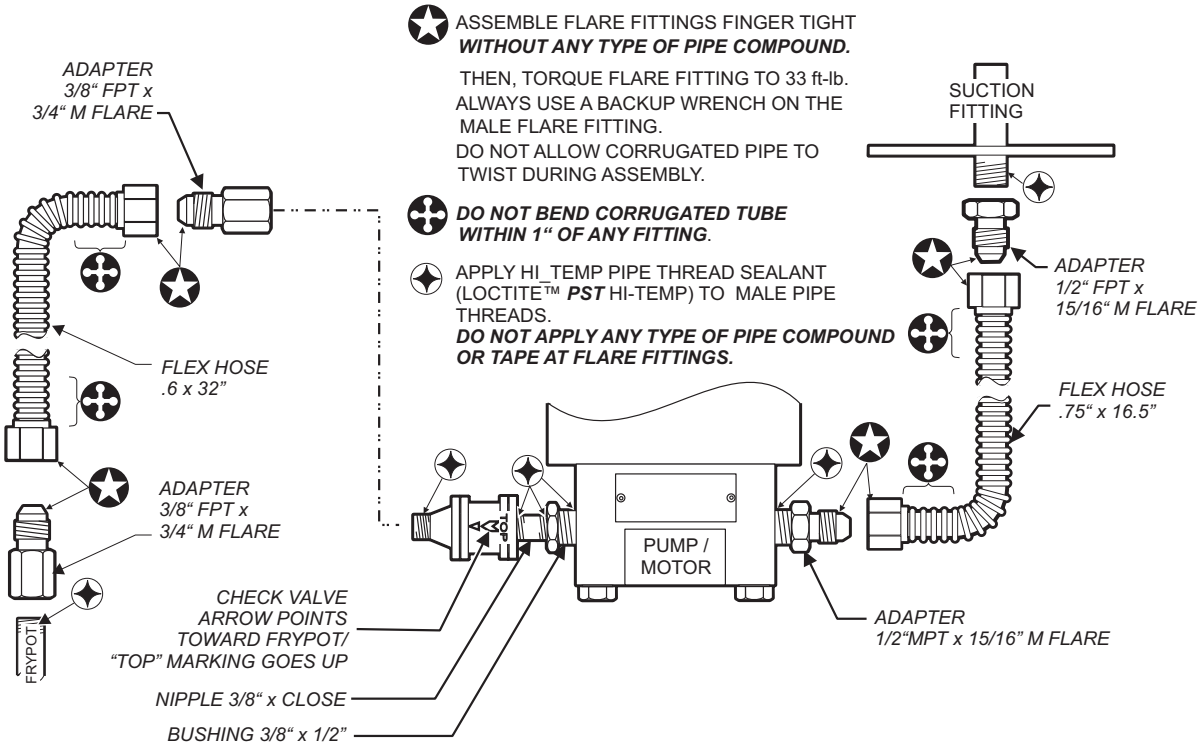


WFGA-60FS STANDARD FRYER

WFGA-60FS FRYER w/ FILTER WAND OPTION
and DRAIN SAFETY SWITCH



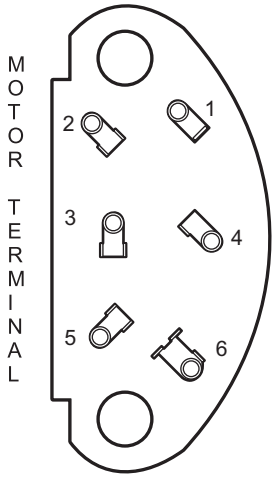
FILTER SYSTEM - PUMP & PIPING ASSEMBLY


ASSEMBLE FLARE FITTINGS FINGER TIGHT
WITHOUT ANY TYPE OF PIPE COMPOUND.
THEN, TORQUE FLARE FITTING TO 33 ft-lb.
ALWAYS USE A BACKUP WRENCH ON THE MALE FLARE FITTING.
DO NOT ALLOW CORRUGATED PIPE TO TWIST DURING ASSEMBLY.
DO NOT BEND CORRUGATED TUBE WITHIN 1" OF ANY FITTING.
APPLY HI_TEMP PIPE THREAD SEALANT (LOCTITE™ PST HI-TEMP) TO MALE PIPE THREADS.
DO NOT APPLY ANY TYPE OF PIPE COMPOUND OR TAPE AT FLARE FITTINGS.
ADAPTER 3/8" FPT x 3/4" M FLARE
FLEX HOSE .6 x 32"
ADAPTER 3/8" FPT x 3/4" M FLARE
FRYPOT
CHECK VALVE ARROW POINTS TOWARD FRYPOT/ "TOP" MARKING GOES UP
NIPPLE 3/8" x CLOSE
BUSHING 3/8" x 1/2"
TOP
PUMP / MOTOR
SUCTION FITTING
ADAPTER 1/2" FPT x 15/16" M FLARE
FLEX HOSE .75" x 16.5"
ADAPTER 1/2"MPT x 15/16" M FLARE

IMPORTANT:

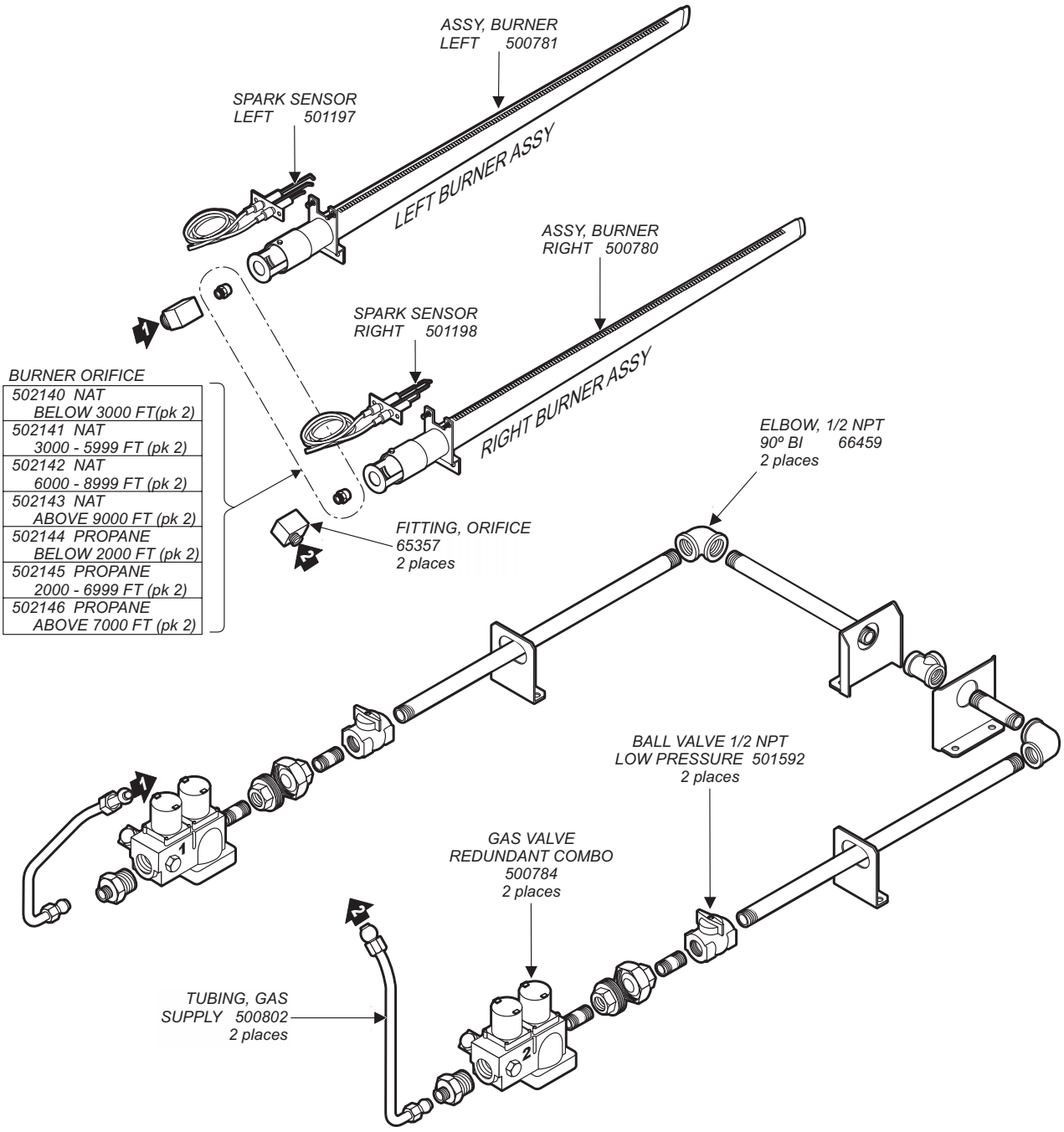
- Motor is a dual voltage rated unit, and must be field wired to match the electrical service supply voltage.
- Motor is shipped from the factory wired for 230V and may be wired for either 230V or 125V. Verify supply voltage. If necessary, rewire motor, at terminal block in the end of the motor, per the table shown below.

IMPORTANT: Failure to correctly wire the motor will result in failure to start, motor tripping or permanent damage to the pump motor.

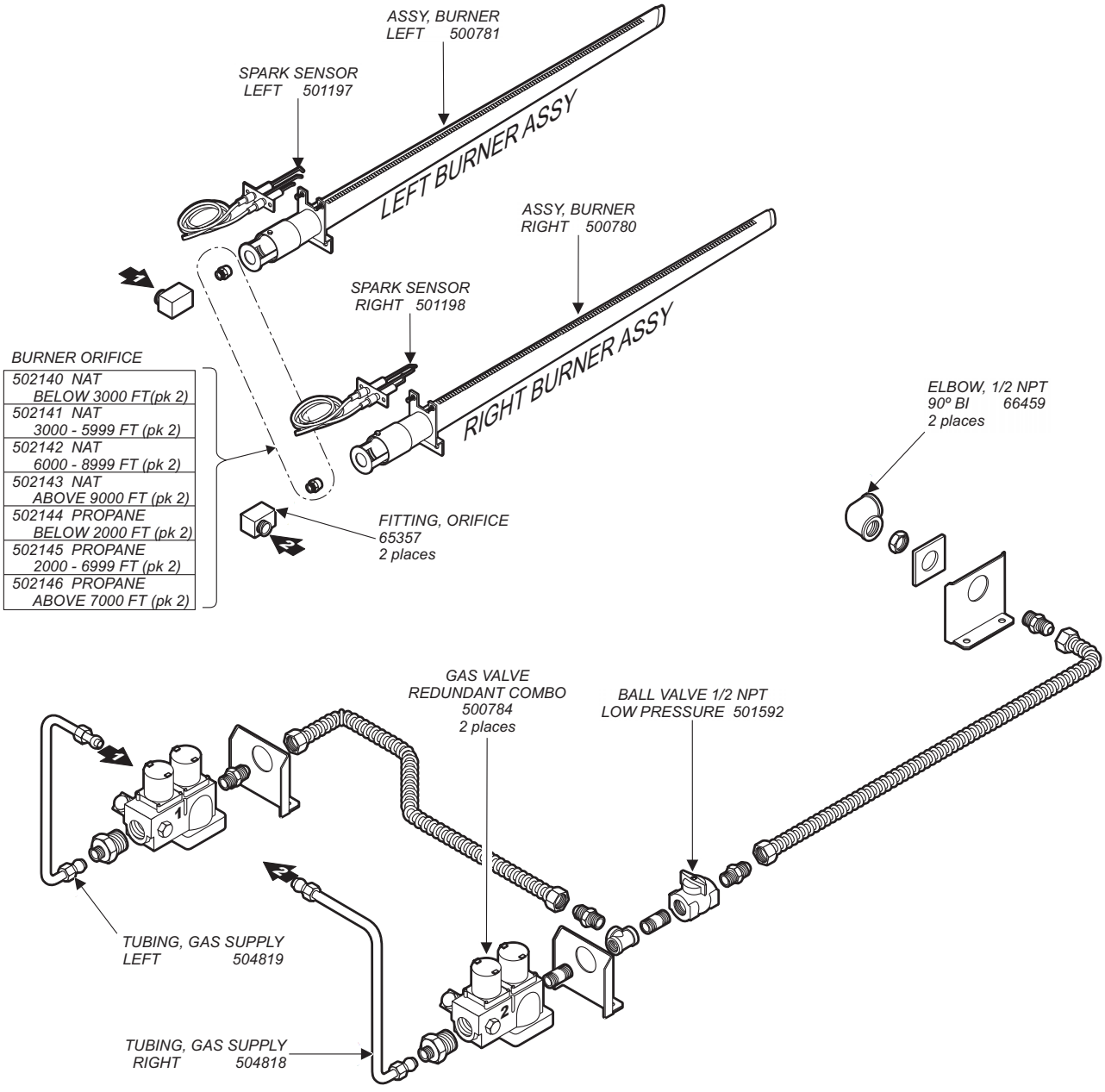


125V (requires field conversion)		230V (factory configuration)	
1 (LINE)	YELLOW / BLACK	**1 (LINE)**	YELLOW/BLACK
2	BLUE BLUE	**2**	BLUE BLUE
3	(unused)	**3**	BROWN
4	BLACK	**4**	BLACK
5	BROWN ORANGE	**5**	WHITE ORANGE
6 (LINE)	WHITE YELLOW	**6 (LINE)**	YELLOW

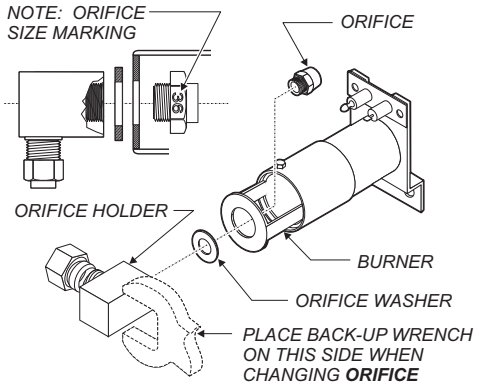
BURNER SYSTEM (OLD STYLE) EXPLODED VIEW

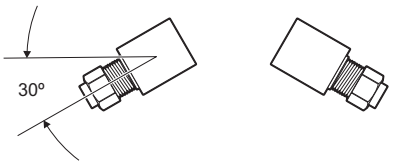


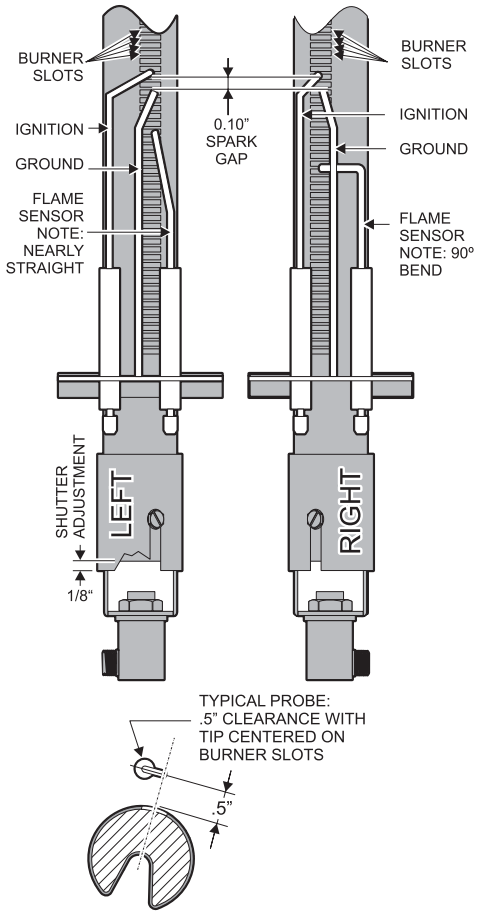
BURNER SYSTEM (NEW STYLE) EXPLODED VIEW



BURNER SYSTEM - ASSEMBLY INSTRUCTIONS







A. ORIFICE INSTALLATION

1. Slide the brass ORIFICE through the ring on the end of the BURNER, threaded end pointing out.
2. Slide the ORIFICE WASHER over the threads of the ORIFICE.
3. Screw the ORIFICE HOLDER on to the ORIFICE. Tighten the orifice holder so that the compression fitting sits pointing toward the outside and down at a 30º angle.
4. Always use a back-up wrench when tightening the orifice to avoid bending the orifice bracket.

B. SHUTTER ADJUSTMENT

1. This is an initial adjustment. Final adjustment will be made while the burner is in operation.
2. Loosen the holding screw. Set the shutter so that 1/8" of the shutter is exposed. Tighten the screw.

C. BURNER TUBES

1. BURNER TUBES are handed right and left. Visually, the row of burner slots point up and slightly inward. Also, the tops of the rear mounting tabs slant toward the center.

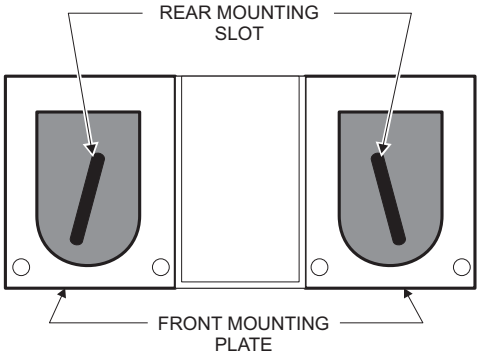
D. IGNITOR ASSEMBLY

1. IGNITORS are handed right and left. Visually:
   a. Right: The flame sensor (right probe) is bent at a 90º angle;
   b. Left: The flame sensor (right probe) is nearly straight.
2. When properly assembled, all three probes will lay on a line drawn from the center of the burner tube through the center of the burner slots.
3. All three probes should be .5" from the outer surface of the burner slots.
4. The gap between the ignitor and ground probes must be .10".
5. To insure proper ignition, the gap between the ignitor and ground probes must be directly in the gas stream.
6. To insure proper flame detection, the tip of the flame sensor probe must be directly in the gas stream.

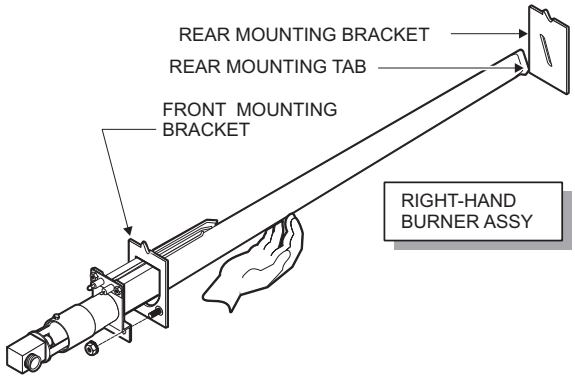
BURNER SYSTEM - ASSEMBLY INSTRUCTIONS

E. BURNER INSTALLATION

1. Insert each BURNER TUBE through its respective mounting plate.

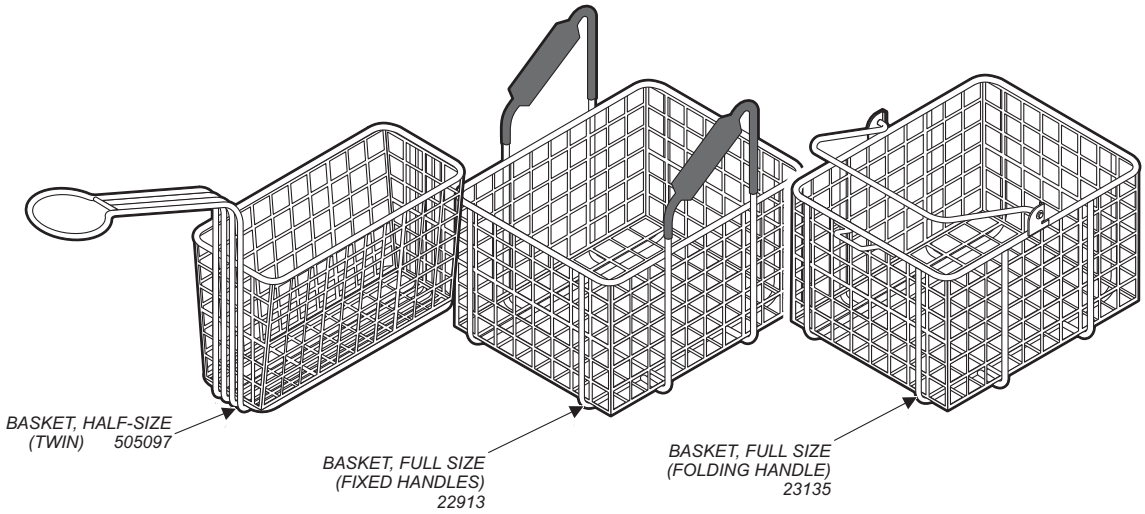


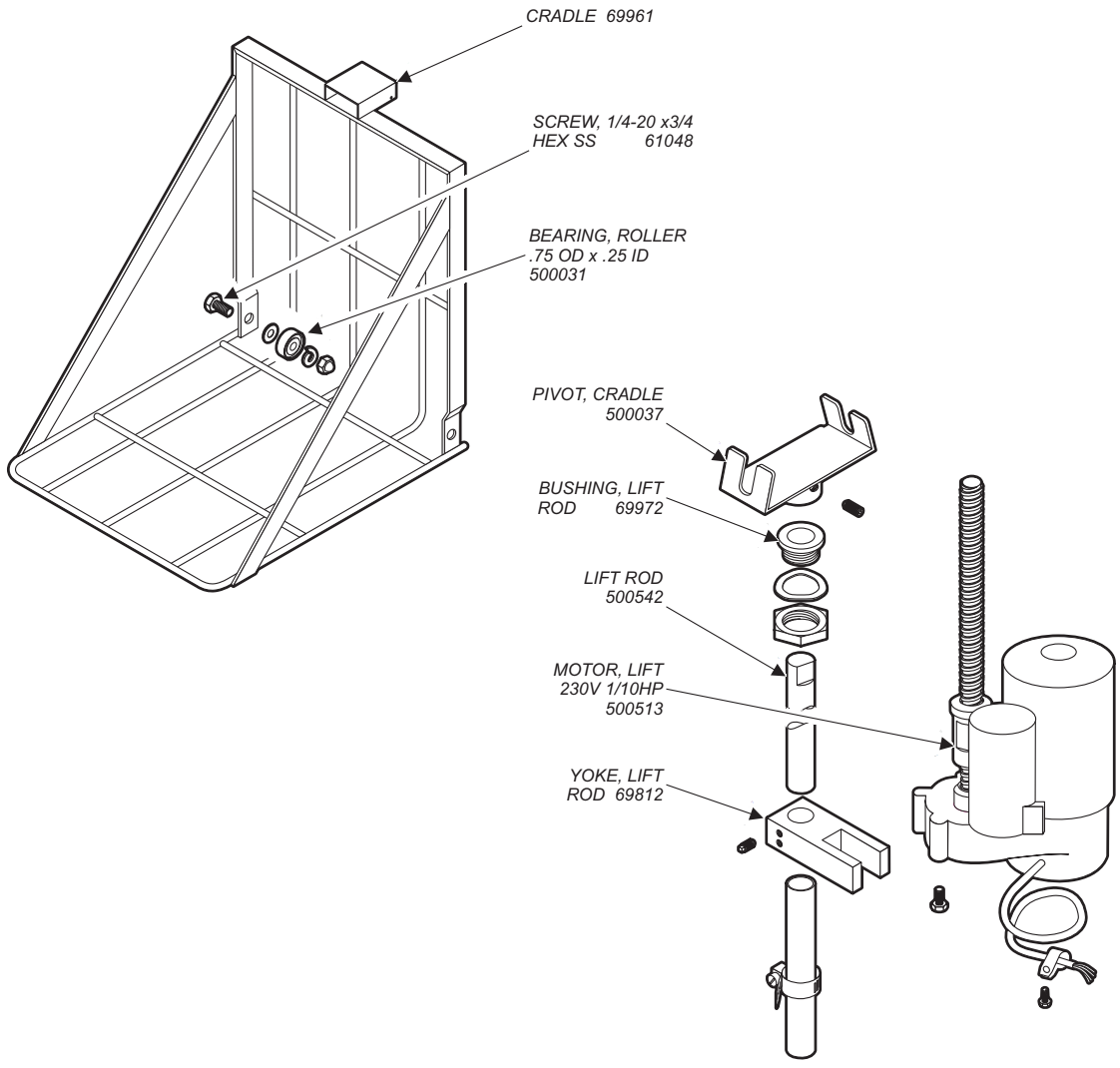
2. CAREFULLY reach inside the unit, just above the filter pump heat shield, to guide the rear mounting tab of the burner tube into the slot in the rear mounting bracket.



3. Slide the the burner assembly over the front mounting studs, thread on nuts and tighten.

FRY BASKET & CRADLE LIFT SYSTEM COMPONENTS




CRADLE 69961
SCREW, 1/4-20 x3/4 HEX SS 61048
BEARING, ROLLER .75 OD x .25 ID 500031
PIVOT, CRADLE 500037
BUSHING, LIFT ROD 69972
LIFT ROD 500542
MOTOR, LIFT 230V 1/10HP 500513
YOKE, LIFT ROD 69812

FRY BASKET & CRADLE LIFT SYSTEM ASSEMBLY

A. LIFT ROD GUARD

Assemble LIFT ROD GUARD into FRAME. GUARD slides through holes in the MOTOR MOUNT PLATE and bottom of FRAME BACK PLATE, and rests on BOTTOM PLATE of frame. It is held in place by HOSE CLAMPS above and below MOTOR MOUNT PLATE.

B. LIFT ROD BUSHING

1. Top bushing assembles through TOP PANEL and FRAME. WAVE WASHER and JAM NUT go *BELOW* top part of frame.
2. Bottom bushing assembles through the top hole in FRAME BACK PANEL.

C. LIFT MOTOR

1. Apply voltage to *BLACK* and *WHITE* wires of the motor until screw stops turning. This is the *full-down* position. Turn BRASS NUT until the distance from the top of the nut to the top of the screw is 10-1/4" to 10-3/8".
2. Assemble the LIFT MOTOR to the MOTOR MOUNT PLATE with four bolts and threadlock.

D. CRADLE PIVOT

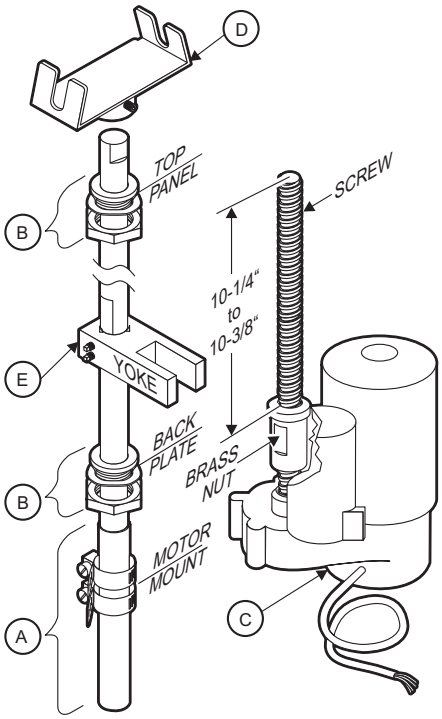
Assemble CRADLE PIVOT to LIFT ROD. SET SCREW on PIVOT COLLAR must be centered on flat on LIFT ROD.

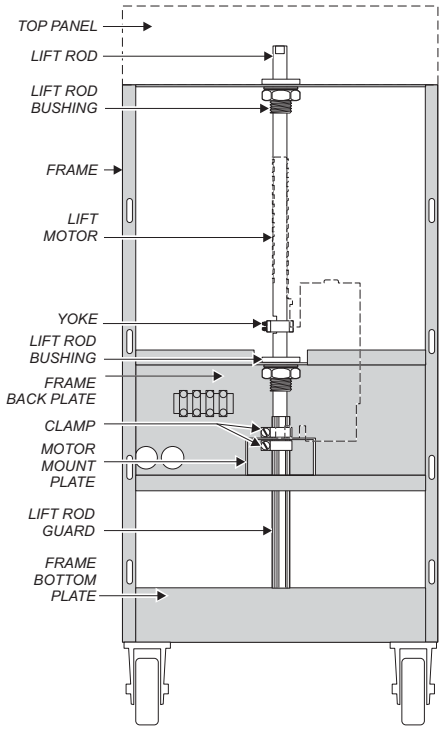
E. LIFT ROD YOKE

1. Slide fingers of YOKE over flats of BRASS NUT. Set screws must be on the side *away* from the motor.
2. Slide PIVOT / LIFT ROD through top BUSHING, YOKE, bottom BUSHING and LIFT ROD GUARD. CRADLE PIVOT must be parallel to rear portion of TOP PANEL, with the downturned lip of the PIVOT toward the *front* of the fryer.
3. Center the YOKE on the flats of the BRASS NUT, then tighten YOKE SET SCREWS on flat of LIFT ROD.
4. Apply voltage to the motor leads and carefully observe the end points of the up-and-down motion. Yoke must clear bushings: adjust by loosening yoke set screws and "bumping" the lift motor as required by applying voltage momentarily to the appropriate motor leads. Tighten set screws and re-test for proper up-and-down operation.

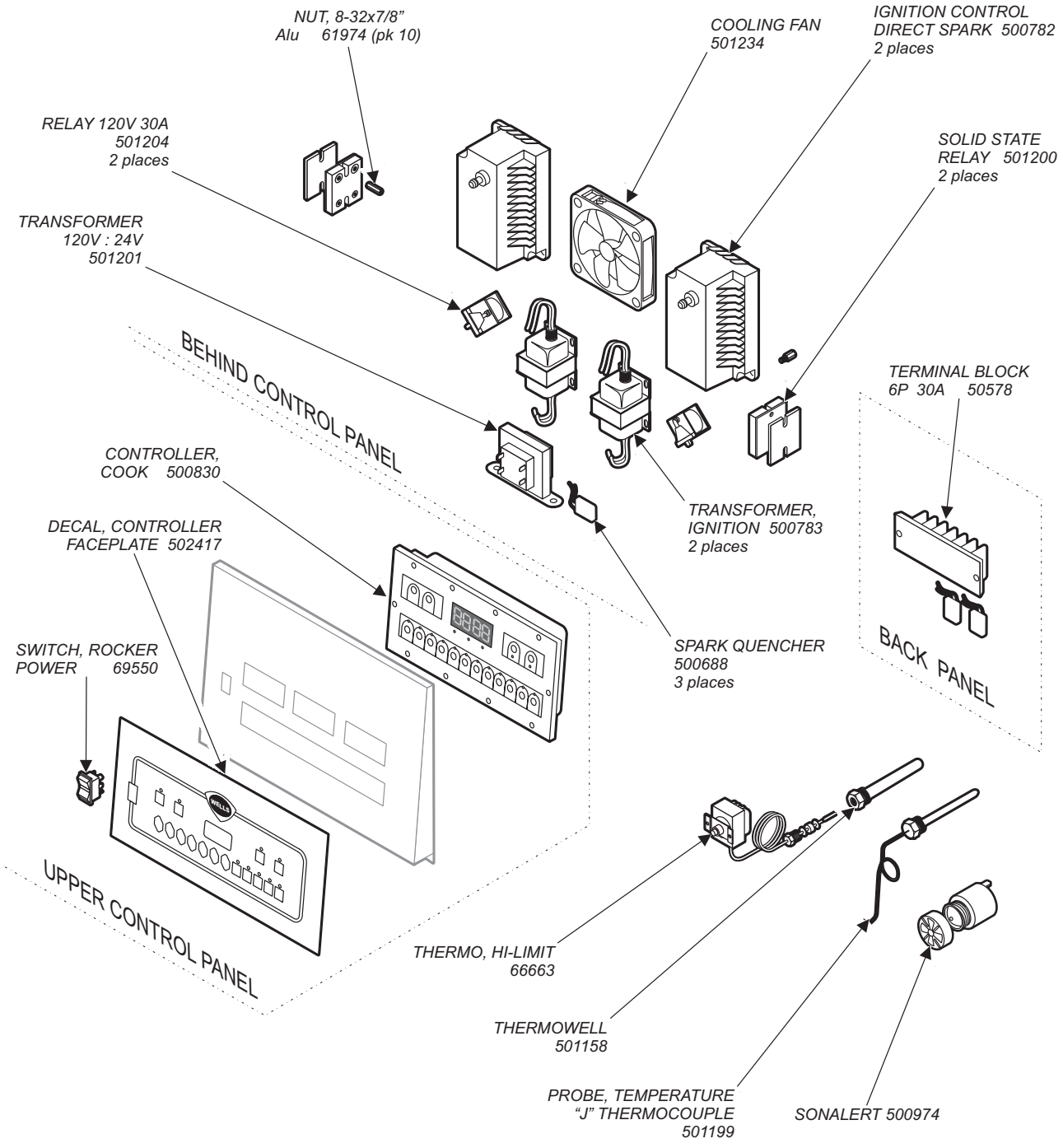
F. LUBRICATION

Lubricate screw threads with a generous amount of "moly" (molybdenum disulfide) grease. Wipe any excess from motor, lift rod and yoke.





ELECTRICAL COMPONENTS



THERMOSTAT INSTALLATION INSTRUCTIONS

A. HI-LIMIT THERMOSTAT

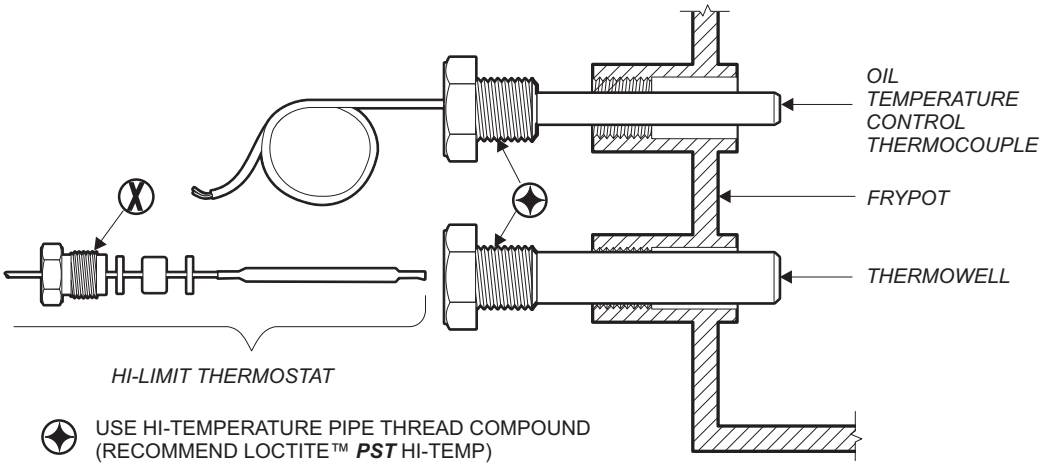
CAUTION
EXPOSED ELECTRIC CIRCUITS

Disconnect electric power before servicing controller or ignition circuits.

1. Install THERMOWELL in lower threaded hole in frypot. Use hi-temperature pipe thread compound.
2. Insert HI-LIMIT THERMOSTAT thermobulb into THERMOWELL. *DO NOT*use any type of pipe thread compound or tape.
   Thread the compression fitting into THERMOWELL and tighten ***finger-tight*** only.

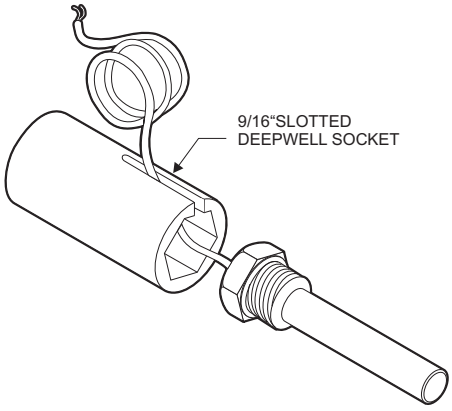
NOTE: The thermobulb sits in the thermowell, and not directly in the hot oil. Thus it is not necessary to over-tighten the compression fitting.
Wrench tightening this fitting may make it impossible to remove should service be required at a later date.

3. Attach body of HI-LIMIT THERMOSTAT to the left mounting bracket below the control panel and connect wiring.

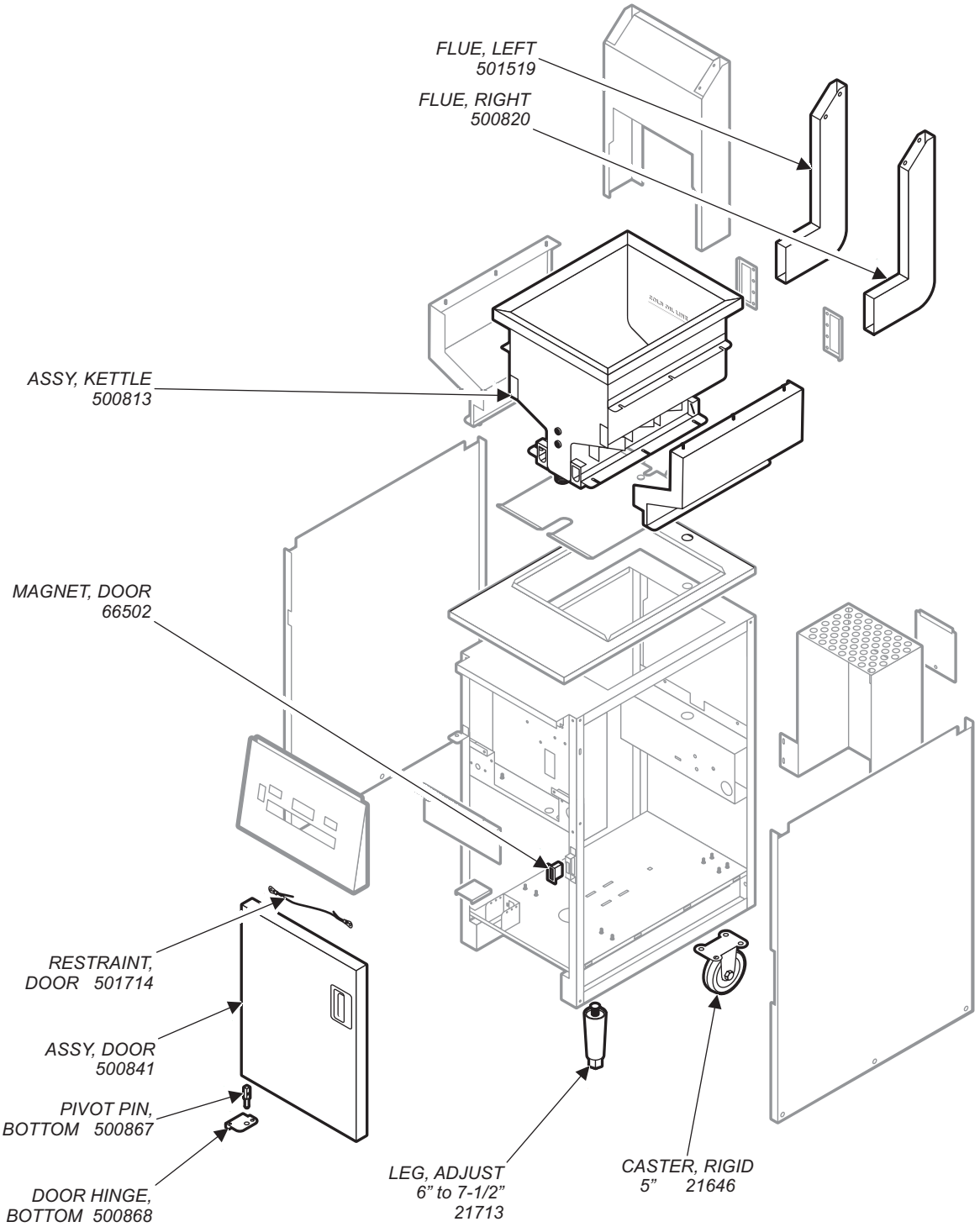

OIL TEMPERATURE CONTROL THERMOCOUPLE
FRYPOT
THERMOWELL
HI-LIMIT THERMOSTAT
USE HI-TEMPERATURE PIPE THREAD COMPOUND (RECOMMEND LOCTITE™ PST HI-TEMP)
DO NOT USE ANY TYPE OF PIPE COMPOUND OR TAPE ON THE HI-LIMIT THERMOSTAT COMPRESSION FITTING

B. TEMPERATURE CONTROL THERMOCOUPLE

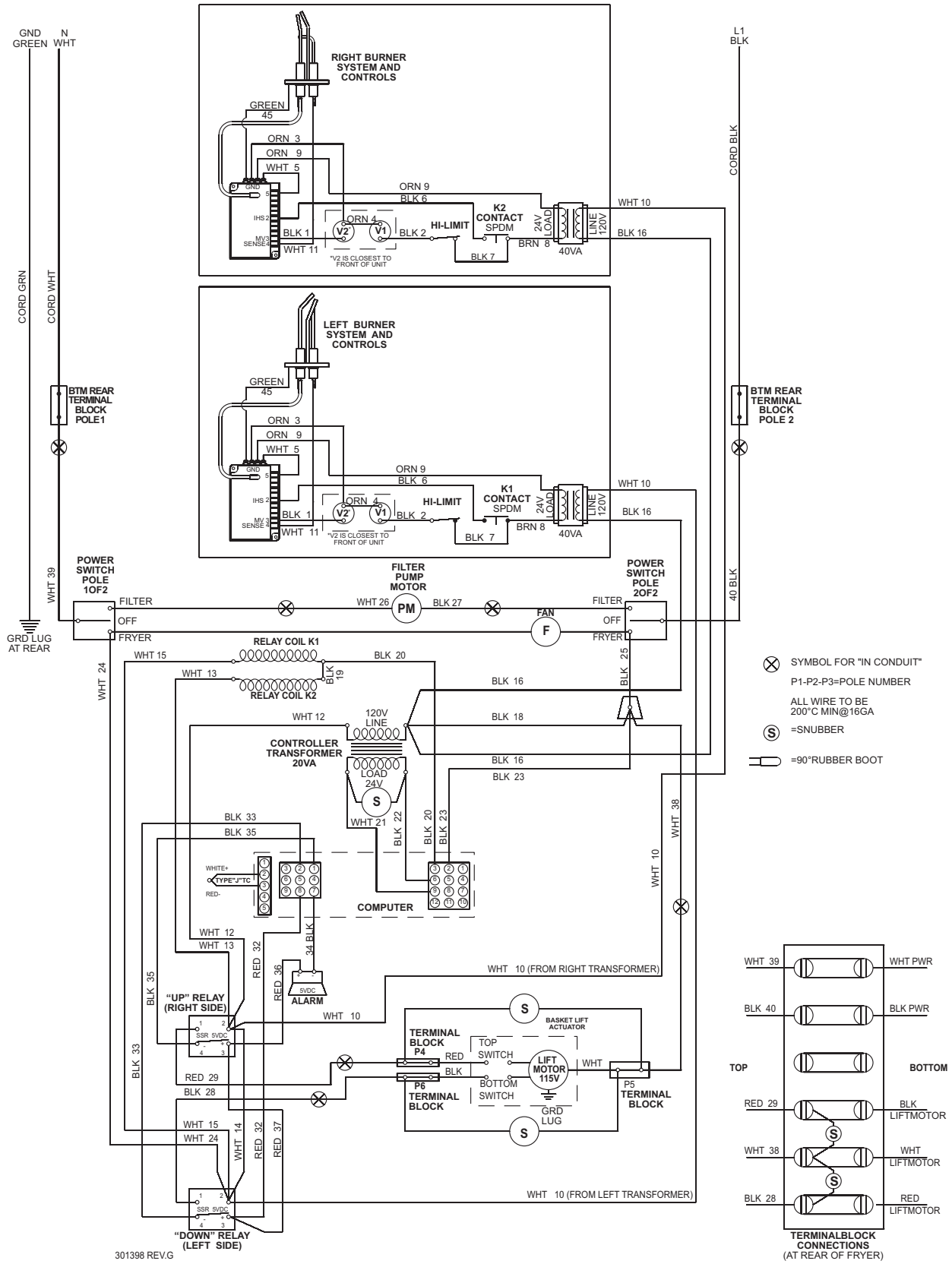
1. Install THERMOCOUPLE in upper threaded hole in frypot. Use hi-temperature pipe thread compound.
2. Tighten using a slotted 9/16" deepwell socket or offset flare nut wrench, ***taking care to not damage the thermocouple leads.***
3. Connect thermocouple leads to controller terminals 2 (white or +) and 3 (red or -).



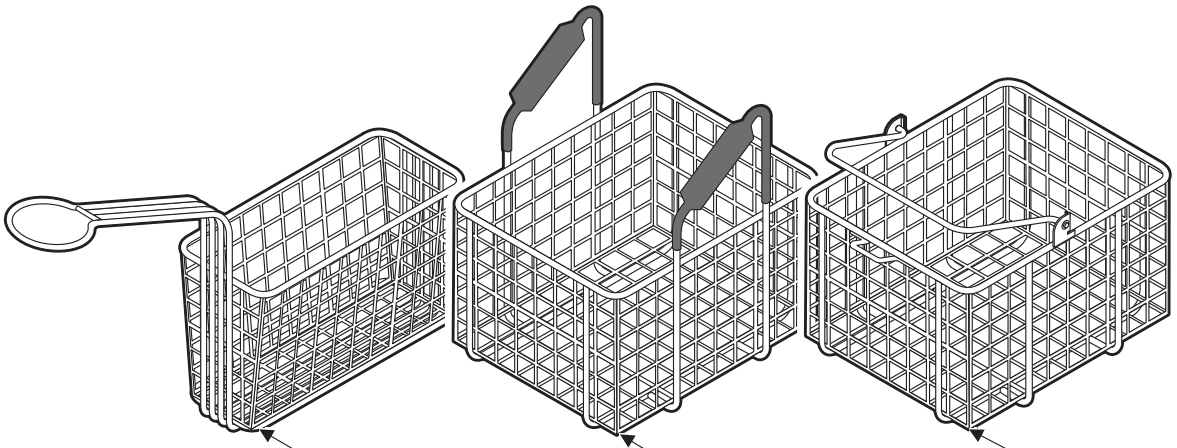
CABINET COMPONENTS



SCHEMATIC / WIRING DIAGRAM 120VAC-60HZ-1ø WFGA-60FS



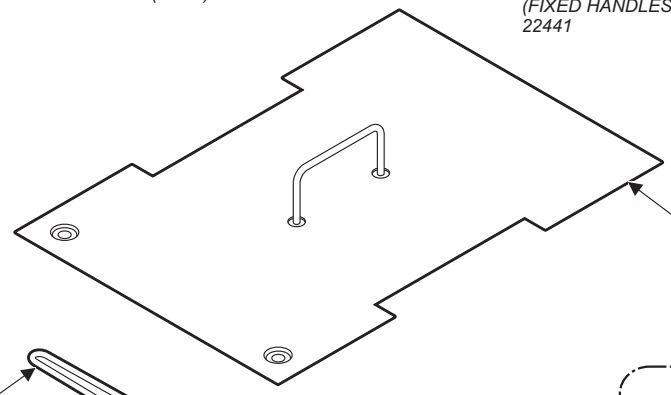
ACCESSORIES



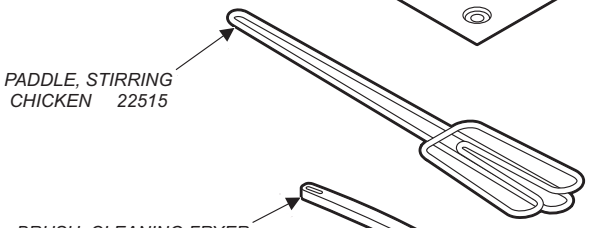
BASKET, HALF-SIZE (TWIN) 22796

BASKET, FULL SIZE (FIXED HANDLES) 22441

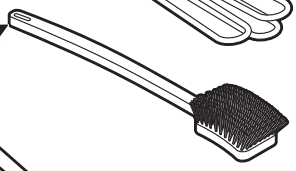
BASKET, FULL SIZE (FOLDING HANDLE) 23135



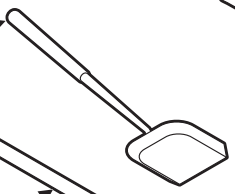
COVER, FRYPOT 502039



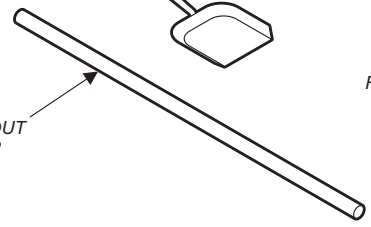
PADDLE, STIRRING CHICKEN 22515



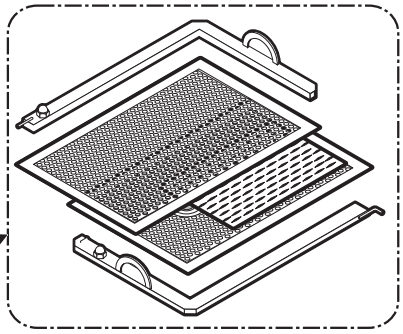
BRUSH, CLEANING FRYER (HI-TEMP) 22516



SHOVEL, STAINLESS STEEL 501901



DOWEL, CLEANOUT FRYER 69752

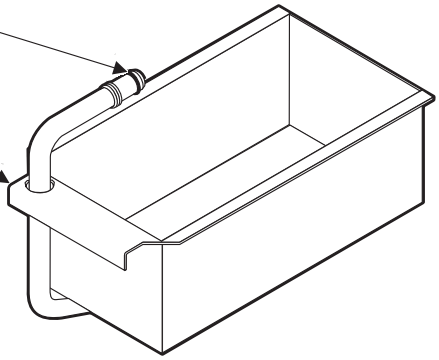


O-RING FOR FILTER LEAF (not shown) 501900

LEAF FILTER 22635

O-RING 66474 (pk 5)

FILTER RESERVOIR 501858



FLAVOR-SAVER FILTER POWDER (not shown) 22410 (45 packs) 22442 (9 packs)